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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10 087,108	02 28 2002	Raul A. Cernea	SDK1P008 250	4189

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EXAMINER

AUDUONG, GENE NGHIA

ART UNIT PAPER NUMBER

2818

DATE MAILED: 04 24 2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,108

Applicant(s)

CERNEA, RAUL A.

Examiner

Gene N Auduong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The corrected or substitute drawings were received on April 30, 2002. These drawings are acceptable.

Information Disclosure Statement

2. This office acknowledges receipt of the following items from the applicant:
 - Information Disclosure Statement (IDS), filed on October 29, 2002.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-33 are rejected under 35 U.S.C. 102(a) as being anticipated by Harari et al. (U.S. Pat. No. 6,532,172).

Regarding claim 1, Harari et al. disclose a non-volatile semiconductor memory device, comprising: a plurality of bit lines (see figure 4); a plurality of word lines (see figure 4); and a plurality of dual cell storage elements 127 (see figure 4, memory cell 127 having two memory transistors have respective floating gate 128 and 129), each of the dual cell storage elements including at least a source device, a drain device and a select device (see figure 4), wherein two out of a total of six of the source devices and the drain devices in three adjacent dual cell memory units along a particular one of the word lines are able to be programmed or read simultaneously (figure 4, transistors 128 and 129 and their adjacent memory transistors are

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programmed or read simultaneously by the external steering gate lines 140 and 141, respectively, also see col. 7, lines 26+).

Regarding claim 2, Harari et al. disclose a non-volatile semiconductor memory device comprising all of the limitation as recited in claim 1, wherein each of the select devices (figure 4, select transistor 132) couples to one of the word lines, and wherein each of the source devices and the drain devices couple between one of the bit lines and one of the select devices (see figure 4 and its related description).

Regarding claim 3, Harari et al. disclose a non-volatile semiconductor memory device comprising all of the limitation as recited in claim 1, wherein each of the source device and the drain devices include a floating gate (see figure 1, flash EEPROM type memory transistor).

Regarding claim 4, Harari et al. disclose a non-volatile semiconductor memory device comprising all of the limitation as recited in claim 3, wherein the select devices do not include a floating gate (see figure 4 and its related description).

Regarding claim 5, Harari et al. disclose a non-volatile semiconductor memory device comprising all of the limitation as recited in claim 1, wherein the storage elements are Flash type storage elements (see figures 1).

Regarding claim 6, Harari et al. disclose a non-volatile semiconductor memory device comprising all of the limitation as recited in claim 1, wherein the storage elements are EEPROM type storage elements (see figure 1).

Regarding claim 7, Harari et al. disclose a non-volatile semiconductor memory device comprising all of the limitation as recited in claim 1, wherein the non-volatile semiconductor memory device is provided within a memory card (col. 3, lines 40+).

Regarding claim 8, Harari et al. disclose a portable memory card, comprising. a data storage array (see figure 1, EEPROM cell array), the data storage array including at least a plurality of bit lines (see figure 4), a plurality of word lines (see figure 4), and a plurality of dual cell storage elements, each of the dual cell storage elements including at least a source device, a drain device and a select device (see figure 4); and a controller (figure 1, controller 27) operatively connected to the storage elements, the controller operating to control reading and writing to the data storage array, wherein two of the source devices and the drain devices in three adjacent dual cell storage elements along a particular one of the word lines are able to be programmed or read simultaneously (figure 4, transistors 128 and 129 and their adjacent memory transistors are programmed or read simultaneously by the external steering gate lines 140 and 141, respectively, also see col. 7, lines 26+, col. 3, lines 40+).

Regarding claim 9, Harari et al. disclose a portable memory card as recited in claim 8, wherein each of the select devices couple to one of the word lines (figure 4, select transistor 132), wherein each of the source devices and the drain devices couple between one of the bit lines and one of the select devices, and wherein the three adjacent dual cell storage elements together include three of the source devices and three of the drain devices (see figure 4 and its related description).

Regarding claims 10-11, Harari et al. disclose a portable memory card as recited in claim 8, wherein the data storage array is provided on a single semiconductor chip (memory card is provided on a single semiconductor chip, also see col. 5, lines 31-32).

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Regarding claims 12-19, 20-23, 24-29 and 30-33, the apparatus as previously discussed in claims 1-7 and 8-11 would be performed the method as claimed. Therefore, they are analyzed as previously discussed with respect to apparatus claims 1-7 and 8-11.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pasternak (U.S. pat. No. 6,522,585).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gene N Auduong whose telephone number is (703) 305-1343.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (703) 308-4910. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

GA
April 20, 2003



Gene N Auduong
Examiner
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